UNIVERSUM FT7178

MODEL

SERVICE MANUAL

033066-08 | 033067-01 | 033100-03

Nc KEYBOARD NÄPPÄINLEVY 033 075 42

Yc DISPLAY BOARD NÄYTTÖLEVY 033 075 04

Fc DISPLAY DRIVER MODULE NÄYTÖN OHJAUSMODULI 033 075 66

RC-RECEIVER KS-VAST.OTIN

TL322

SEARCH · AUX · (RES.) · EXTR (NORM) · VOL − · VOL + · STEP − · STEP + · CH/PR · M · FT − · FT +

SYNC · QIRT · LEDn1 · LEDn2

2x D200PA r

16 BIT DRIVERS · 16 BIT LATCH · 16 BIT SHIFTREGISTER

SDA 2131

BPW41 · BC549B · TDA 4050

TO MAINS SWITCH VERKKOKYTKIMELLE

AERIAL TERMINAL

16 BIT SR-MEMORY · SDA 2112-2 · SDA 2116 · 3xBC557B · 30V · 12V

IC2 TDA 2545 A · MIXER · OFW G3201 * J3201 · BF959 · BA243 · TPS55mB

TDA 4443

TEA 2014 · BC547B

SCART EUROCONNECTOR

SDA 2010A006 · 1N4148 · BC557B · MC 144111

OPTIONAL SOUND NORM · STEREO CROSSTALK ADJ. · LM 358

TBA 120 U · SFT5.5MA · SFT5.74MA

TELETEXT · BC547B · 1N4007 · BD241A · BZX83C5V6 · BD241A · BC547B · BC337-25 · 7812 · BD438 · BC547B

DUAL SOUND IDENT. ADJ

UNIVERSUM®

83100635

I 1 · 0,2V, 10µs · 5 · 0,5V, 10µs · 3 · 0,5V, 10µs · 6/48 · 0,5V, 10µs

T 11 · 0,2V, 1µs · 13 · 1V, 0,5ms · 15 · 1V, 20ms · 20 · 1V, 2ms · 12 · 1V, 0,5ms · 14 · 1V, 20ms · 19 · 0,5V, 0,2ms

E 21 · 0,5V, 0,5ms · 22 · 0,5V, 0,5ms

OPTIONAL SOUND NORM

SCART EUROCONNECTOR

SDA 2010A006

MC 144111

TDA 4292

TDA 4935

TDA 2795

TBA 120 U

TOA 2545 A

TEA 2014

LM 358

S 033 073 60

T 11

0,2V, 1µs

1V, 0,5ms

1V, 20ms

1V, 2ms

0,5V, 0,2ms

E 21

0,5V, 0,5ms

5,2V

22

B 48

0,5V 10µS

3V

49

10µS, 0,05V (PAL)

0V

52

10µS, 0,05V (PAL)

2,3V

54H

1V, 10µS

56H

10µS,20V

140V

58H

10µS, 20V

61

0,2V, 10µS

10µS, 0,05V (SECAM)

53H

57H

55

50µS, 0,5V

59

62

SCART EUROCONNECTOR

S 033 073 60

TDA4555 ICb1

TDA4560 ICb2

TDA3505 ICb3

TDA 4292 ICp1

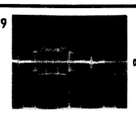
TDA 4935 ICp2

PANORAMA SOUND

TO CRT MODULE

B 48

49



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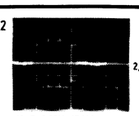
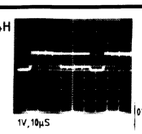
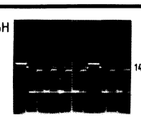


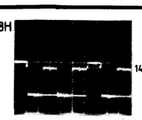
54H



56H

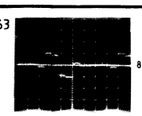


58H



61

63



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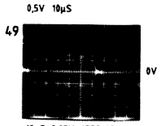

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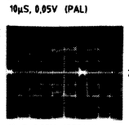
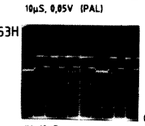


53H



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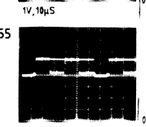
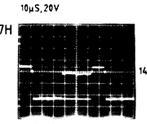
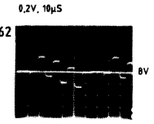


57H



59

62



SIGNAL UNIT

033100-03

SYNC. PROCESSOR
TDA 2578 A
ICh1

VERT. AMPLIFIER
TDA 3652
ICk1

POWER SUPPLY
MAINS ISOLATED
MAINS NON ISOLATED
ICu1
TDA 4600-2D

PY55-600

BC547B

BC557B

BZX83
C2V7

BU508A

BF881

BC637

1N4148

1N4007

BY299

BY399

2x 1N4148

3x 1N4148

4xBY133

2x 1N4007

BU908

BD241A

BC557B

DEFL YOKE

FJ 199

F1,25A

T2A

033055-44
Cz12 8n2
Mz3 G3433-06

Mz3
37007-03

U 1
1V
0,5V, 5µs

4
0V
0,2V, 5µs

2
0V
2V, 5µs

5
2V
0,2V, 5µs

3
0V
100V, 5µs

H 1H
3V
1V, 10µs

3V
5V
0,1V, 5ms

6V
0V
1V, 5ms

8H
0V
1V, 10µs

2H
2V
0,5V, 10µs

4V
3V
1V, 5ms

7H
0V
2V, 10µs

9H
0V
2V, 10µs

2V
2V
0,5V, 5ms

5V
4V
0,2V, 5ms

7V
0V
2V, 5ms

K 11V
0V
0,5V, 5ms

14V
0V
10V, 5ms

12V
25V
5V, 5ms

15V
0V
0,5V, 5ms

13V
0V
5V, 5ms

16V
10V
1V, 5ms

X 17V
3V
0,2V, 5ms

18V
7V
0,5V, 5ms

19V
10V
5V, 5ms

Z 21H
0V
20V, 10µs

24H
0V
5V, 10µs

21V
0V
20V, 5ms

25H
0V
10V, 10µs

22H
0V
20V, 10µs

26H
0V
2V, 10µs

22V
0V
20V, 5ms

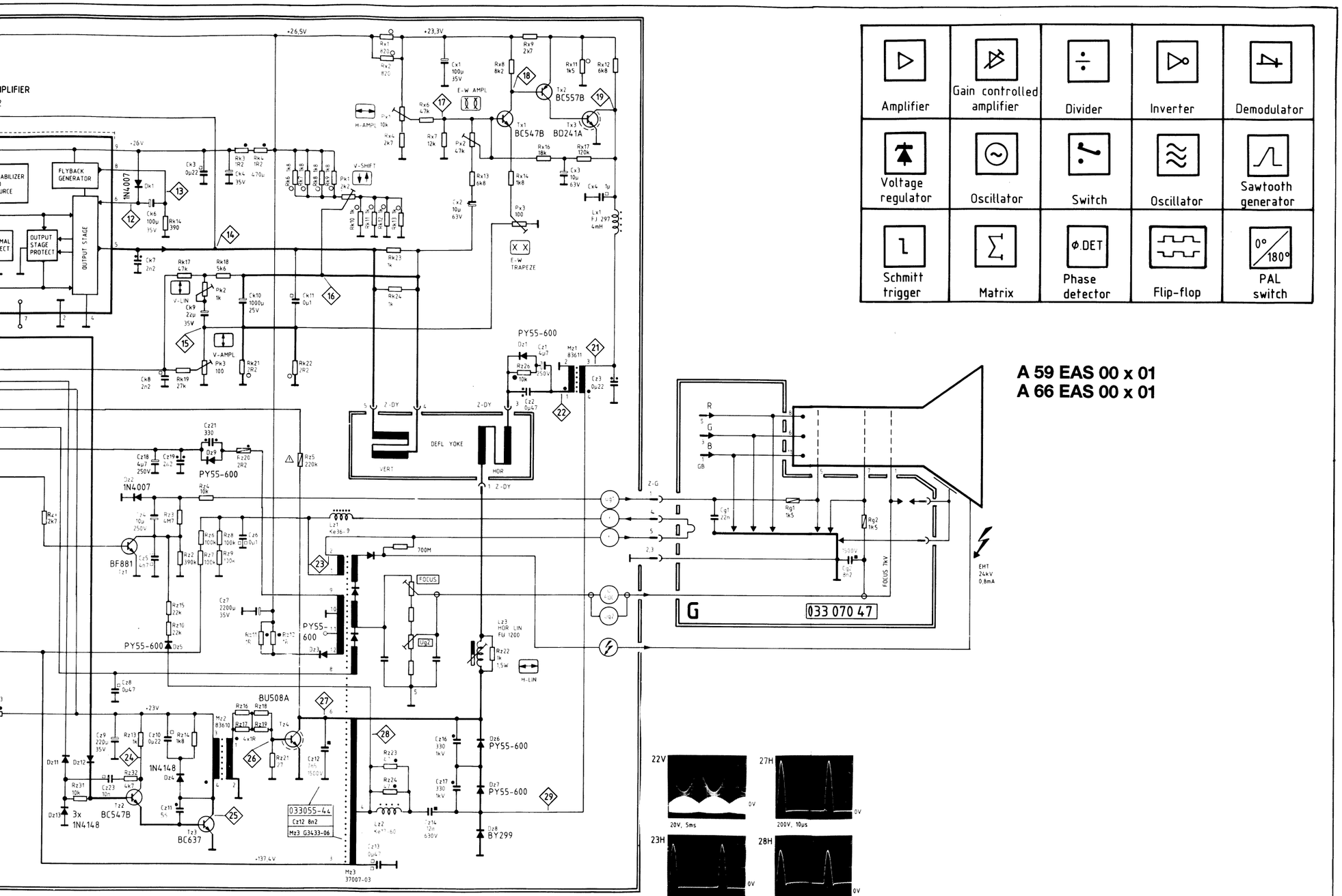
27H

23H
0V
5V, 10µs

28H

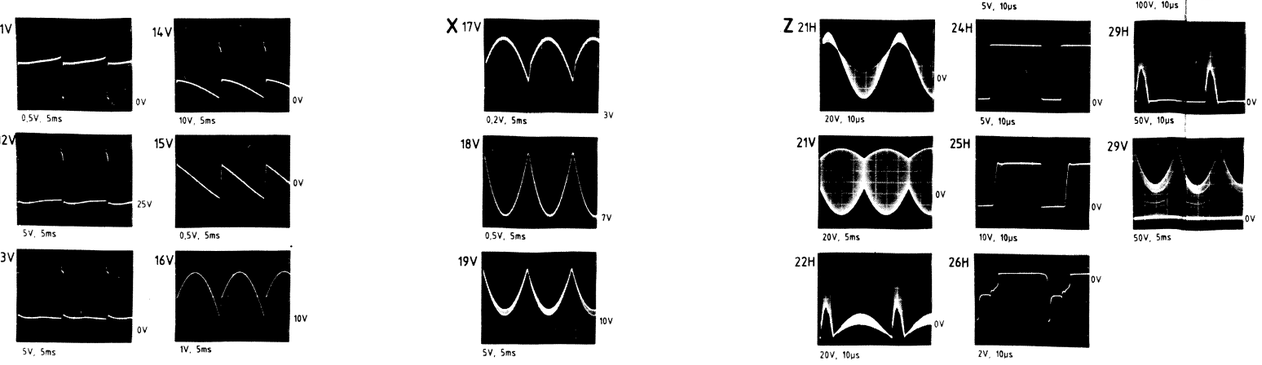
29H

29V



Amplifier	Gain controlled amplifier	Divider	Inverter	Demodulator
Voltage regulator	Oscillator	Switch	Oscillator	Sawtooth generator
Schmitt trigger	Matrix	Phase detector	Flip-flop	PAL switch

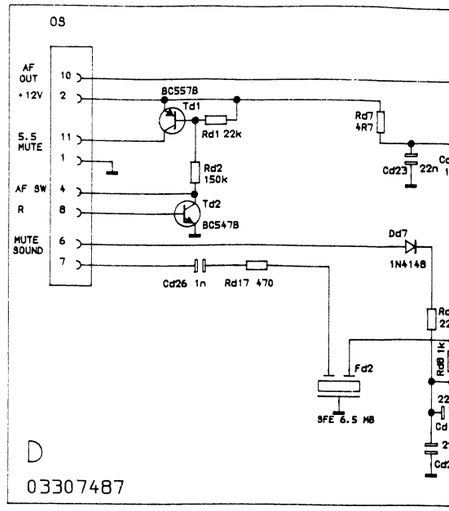
A 59 EAS 00 x 01
A 66 EAS 00 x 01



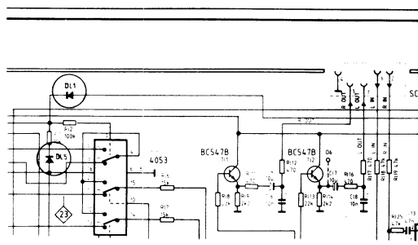
POWER SUPPLY/DEFLECTION UNIT

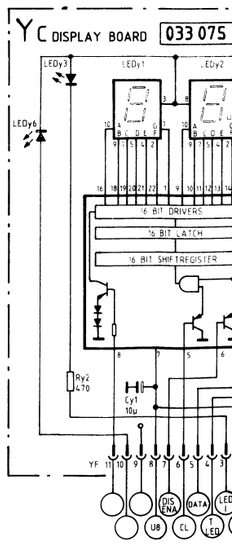
033 055 3₇

OIR-TON MODUL D 03307487



Änderung in der Signaleinheit: Dioden Dl1 und Dl5 (





Amplifier	Gain controlled amplifier	Divider	Inverter	Demodulator
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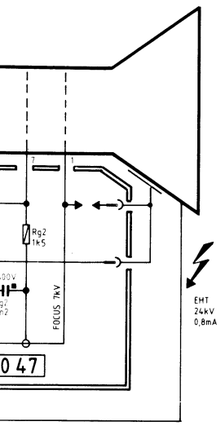
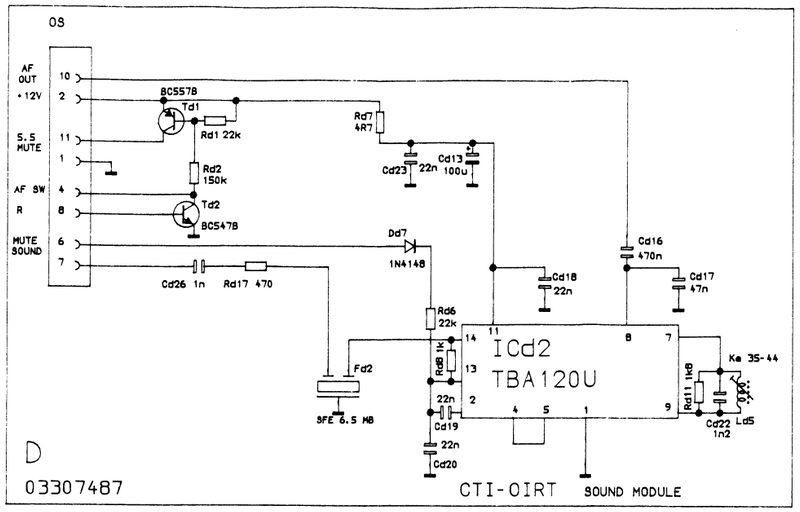


A 59 EAS 00 x 01
A 66 EAS 00 x 01

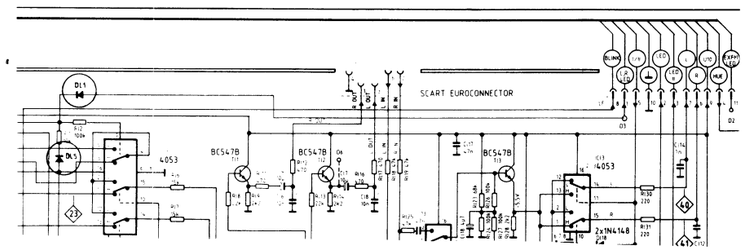
POWER SUPPLY/DEFLECTION UNIT

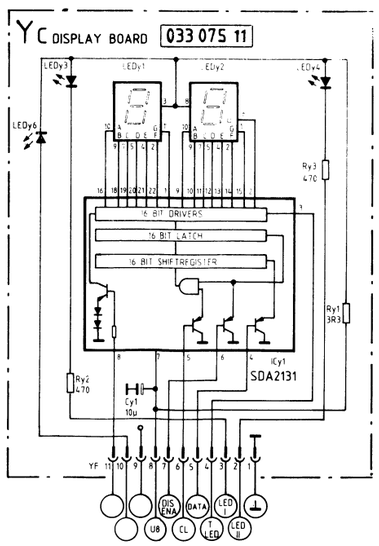
033 055 3$_7$

OIR-TON MODUL D 03307487



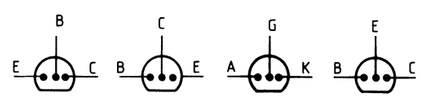
Änderung in der Signaleinheit: Dioden DI1 und DI5 (1N4148) an den bezeichneten Stellen.





Ceramic	Polystyren	Polyester Polycarbon.	Polypropyl.	Notes can be combined when necessary	
63 - 100V	63 - 100V	100V	100V	Paper capac.	
160 - 250V	160 - 250V	250V	250V	Electrol. 16V	1500V
400 - 500V		400 V	400 V	Bipol.capac.	Folio capac
Hi - Cap				Tantal capac	Y capacitors
					Safety/double Isolated capacitor

- 1/4 W
- 1/2 W
- 1 W
- 2 W
- 3 W
- 7 W
- Low noise/Rauscharm Brusfritt/Pienikohinainen
- Flame proof/Nicht brennbar Flammsäkert/Palamaton
- Thermal fuse/Auslötsicherung Termisk säkring/Lämpövaroke
- Fuse resistor/Sicherungswiderstand Säkringsmotstånd/Sulakevastus

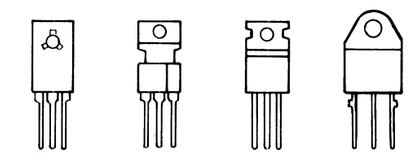


BC 557 B
BC 547 B
BC 337-25

BFR 88
BC 637
BF 423

MCR 100-6

BF 959



BD 348

BF 881

BD 241 A

BU 508
BU 908
TIPL 741